



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,246	03/29/2004	Takashi Hirakawa	SON-1659/CON	9013
23353 7590 05/17/2007 RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036			EXAMINER LAO, LUN YI	
			ART UNIT 2629	PAPER NUMBER
			MAIL DATE 05/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/811,246

Applicant(s)

HIRAKAWA ET AL

Examiner

LUN-YI LAO

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/417,714.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The limitation of "the correction signal for canceling chrominance non-uniformity is **not a luminance correction signal**" cited in claims 1, 3, 4 and 7 does not disclosed in the specification disclose the chrominance non-uniformity correction signals are respectively fed to the brightness adjustment circuits 35R, 35G, and 35B to cancel chrominance non-uniformity(see paragraph 39). The specification discloses the color vide signals(R, G, B) having luminance and chrominance together(see figures 2-4 and paragraphs 33-39) and it is unknow how the correction signal for canceling chrominance non-uniformity is **not a luminance correction signal**.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muraji et al(5,260,797) in view of Seiji(JP 07-143505).

As to claim 1, Muraji et al teach a liquid crystal display apparatus comprising a liquid crystal display panel(3, 59, 60, 61)(see figures 1, 3, 5, 6, 8 and column 3, lines 29-39); means for supplying a primary color video signal(R.G.B) and a correction signal for eliminating chrominance non-uniformity; and means for a common voltage(see figures 3, 5, 6, 8; abstract; column 2; lines 32-45; column 5, lines 17-43; column 6, lines 15-68 and column 7, lines 1-47).

Muraji et al fail to disclose the correction signal for canceling chrominance non-uniformity is not a luminance correction signal.

Seiji teaches a liquid crystal display apparatus comprising a chrominance correction circuit(3) signal for correcting chrominance signals(R-Y, G-Y, B-y) is not a luminance correction signal(see figures 1, 5; abstract; paragraphs 2 and 14). It would have been obvious to have modified Muraji et al with the teaching of Seiji, so the chrominance signals could be corrected more accuracy and quickly.

Art Unit: 2629

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muraji et al(5,260,797) in view of Song(5,831,709).

As to claim 2, Muraji et al fail to apply a correction voltage added to a common voltage.

Song teaches an LCD display for adding a correction voltage(a compensating voltage) to a common voltage(see figures 1 4a; column 1, lines 39-50 and column 5, lines 30-68 and column 6, lines 1-3). It would have been obvious to have modified Muraji et al with the teaching of Song, since to compensate a common voltage is more simple than to compensate a video voltage.

6. Claim 3-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imai(6,067,128) in view of Muraji et al(5,260,797).

As to claims 3-10, Imai teaches a liquid crystal display apparatus comprising a white light source(1)(see figure 4; column 1, lines 19-28 and column 6, lines 15-22); a color separation system(see figures 1, 3, 5, 6, 8; column 3, lines 29-39 and column 4, lines 48-63); a liquid crystal display panel(8) for supplying a red video signal and a common voltage at a common line(TFT transistor connected to a common line)(see column 7, lines 11-35); a liquid crystal display panel(9) for supplying a green video signal and a common voltage at a common line; a liquid crystal display panel(10) for supplying a blue vide signal(10) and a common voltage at a common line(see figure 4 and column 6, lines 14-24); a color synthesis system(6) for synthesizing the color video image and a lens system(6) for projecting video signals in a left-side-right inverted

Art Unit: 2629

orientations(see figures 4 and 8; column 6, lines 14-24 and lines 55-68; and column 7, lines 1-3).

Imai fails to disclose a chrominance non-uniformity correction signal is superimposed on the video signal and the correction signal for canceling chrominance non-uniformity is not a luminance correction signal.

Muraji et al teaches an LCD projector comprising a chrominance non-uniformity correction circuit(69) for superimposed correction signals to liquid crystal display panels(59, 60, 61)(see figures 3, 8; column 5, lines 16-50 and column 7, lines 1-62). It would have been obvious to have modified Imai with the teaching of Muraji et al, so as to provide a better quality picture on a display.

Seiji teaches a liquid crystal display apparatus comprising a chrominance correction circuit(3) signal for correcting chrominance signals(R-Y, G-Y, B-Y) is not a luminance correction signal(see figures 1, 5; abstract; paragraphs 2 and 14). It would have been obvious to have modified Imai as modified with the teaching of Seiji, so the chrominance signals could be corrected more accuracy and quickly.

As to claims 5-6, Imai teaches the liquid-crystal display panel(9) projects(project though a mirror(6)) the left-side-right inverted video image is the liquid-crystal display panel for presenting the green video image(see figures 4, 8 and column 8, lines 4-63).

As to claim 8, Imai as modified teaches chrominance non-uniformity correction signal is superimposed on the primary color video signal(R, G, B)(see figure 6 and column 6, lines 15-66).

As to claim 10, Muraji et al teach chrominance non-uniformity correction signal is superimposed on the common voltage(see column 1, lines 63-68 and column 2, lines 1-2).

As to claim 9, Imai teach the electrical signal processing system includes a fixed common voltage(the common voltage is not changed) fixed through a display period(e.g. frame period)(see figures 4, 8; and column 7, lines 11-29).

Response to Arguments

7. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Applicants argues that the Board does not address the limitation of a chrominance non-uniformity correction signal is superimposed on the video signal on page 7. The examiner disagrees with that since the Board shows that Muraji et al teaches such limitation(see figures 7(a)-8 and column 6, lines 62-66).

Applicants argues that Muraji does not teach chrominance non-uniformity correction signal is superimposed on the common voltage on page 7. The examiner disagrees with that since Muraji teaches chrominance non-uniformity correction signal is superimposed on the common voltage(see abstract; column 1, lines 63-68 and column 2, lines 1-2).

Applicants argues that the Board does not address the limitation of a chrominance non-uniformity correction circuit providing a chrominance non-uniformity correction signal to the electrical signal processing system for canceling chrominance non-uniformity on page 7. The examiner disagrees with that since the Board has addressed such limitation(see pages 3-6 of the Board of Appeal Decision).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hideki(JP 09-218668) teaches a color correction signal added into color signals.

Oda et al(5,841,410) teach an LCD for adjusting a common voltage.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lun-yi Lao whose telephone number is 571-272-7671.

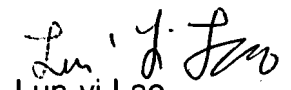
The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 14, 2007


Lun-yi Lao
Primary Examiner